MEASUREMENTS OF THE SOLAR CONSTANT OF RADIATION AT CALAMA, CHILE.

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In continuation of preceding publications I give in the following table the results obtained at Calama, Chile, in September, 1919, for the solar constant of radiation. The reader is referred to this REVIEW for February, August, and September, 1919. for statements of the arrangement and meaning of the table.

The observations during the month of September are wholly comparable with those made in the months of July and August, having been made largely by the new method which was described in the last two of the above citations from the REVIEW. It will be noticed that the observations for September are uniformly lower than those for August, the September average being approximately 1.93 and the August average approximately 1.95 calories per square centimeter per minute.

Date.	Solar Const.	Method.	Grade.	Transmission coefficient at 0.5 microns.	Humidity.			Remarks.
					$\rho/\rho sc.$	V. P.	Rel. Hum.	
1919.								
A. M.	*Cal.*					*Cm.*	*P. ct.*	
Sept. 1	1.930	M_3.....	S—	0.869	0.741	0.05	7	Cirri in south and east.
2	1.895	M_3.....	S—	.867	.642	.06	9	Cirri in east.
	1.917	M_2.....						
	1.912	W. M..						
P. M.								
Sept. 3	1.917	M_3.....	U+	.865	.502	.22	14	Cirri scattered about sky in a. m. Cirri in east and south in p. m.
	1.930	M_2.....						
	1.926	W. M..						
A. M.								
Sept. 4	1.941	E_0.....	E—	.858	.527	.15	20	Cirri in south.
	1.947	M_3.....						
	1.938	M_2.....						
	1.941	W. M..						
5	1.918	M_3.....	S	.865	.572	.15	17	
	1.935	M_2.....						
	1.929	W. M..						
6	1.934	M_3.....	S	.868	.616	.10	12	Some cirri in east below sun.
	1.939	M_2.....						
	1.937	W. M..						
7	1.920	M_3.....	S	.871	.691	.06	8	Some cirri in east.
	1.939	M_2.....						
	1.933	W. M..						
8	1.929	M_3.....	S—....	.867	.611	.11	12	Some cirri in east.
	1.957	M_2.....						
	1.943	W. M..						
9	1.941	E_0.....	VG—	.855	.563	.10	13	Cirri scattered about sky.
	1.919	M_3.....						
	1.932	M_2.....						
	1.931	W. M..						
10	1.905	M_3.....	S	.861	.574	.12	13	Some cirri scattered about south.
	1.929	M_2.....						
	1.921	W. M..						
11	1.941	M_2.....	S—	0.865	0.663	0.14	12	Thin cirri scattered about sky.
12	1.878	E_0.....	VG—	.881	.658	.11	14	Some cirri low in east.
	1.928	M_3.....						
	1.918	M_2.....						
	1.915	W. M..						
13	1.946	M_3.....	S	.876	.748	.09	12	Some cirri in east.
	1.950	M_2.....						
	1.948	W. M..						
14	1.925	M_3.....	S.....	.867	.666	.12	16	
	1.920	M_2.....						
	1.922	W. M..						
15	1.926	M_3.....	S—	.858	.652	.10	12	Cirri scattered about sky and near sun at times.
17	1.925	E_0.....	VG+	.842	.397	.29	32	
	1.932	M_3.....						
	1.937	M_2.....						
	1.933	W. M..						
18	1.922	M_3.....	S—	.864	.579	.16	19	
	1.947	M_2.....						
	1.939	W. M..						
19	1.945	M_3.....	S	.872	.690	.12	12	
	1.950	M_2.....						
	1.949	W. M..						
20	1.947	E_0.....	VG+	.869	.617	.12	15	
	1.941	M_3.....						
	1.957	M_2.....						
	1.948	W. M..						
21	1.950	$M_{1.89}$...	S—	.866	.735	.12	10	Scattered cirri preventing observations at M_3.
P. M.								
Sept. 22	1.917	M_3.....	S	.857	.506	.22	12	Distant cirri in west. Distant cumuli in east.
	1.919	M_2.....						
	1.918	W. M..						
A. M.								
Sept. 23	1.958	E_0.....	VG	.835	.493	.13	15	
	1.925	M_3.....						
	1.940	M_2.....						
	1.938	W. M..						
25	1.932	M_3.....	S—	.858	.484	.26	33	Cirri in east, south and west.
	1.916	M_2.....						
	1.920	W. M..						
26	1.951	E_0.....	VG+	.861	.681	.09	12	Low cirri in east.
	1.941	M_3.....						
	1.955	M_2.....						
	1.951	W. M..						
27	1.908	M_3.....	S—	.860	.598	.12	14	
	1.927	M_2.....						
	1.919	W. M..						
28	1.909	M_3.....	S—	.865	.631	.11	15	
	1.940	M_2.....						
	1.930	W. M..						
29	1.928	M_3.....	S	.851	.648	.10	13	
	1.937	M_2.....						
	1.934	W. M..						
30	1.929	$M_{2.0}$...	S—	.857	.586	.13	13	Thin cirri in east, south and west. Very streaky over whole sky.
	1.912	M_2.....						
	1.918	W. M..						